

Marshall, Vanessa

From: Inouye, Laura (ECY) <Lino461@ECY.WA.GOV>
Sent: Tuesday, August 16, 2016 3:39 PM
To: Bachman, Brenda
Subject: RE: information
Attachments: FW: aluminum in Discovery Bay

Regarding GIS: our program doesn't have a GIS person that can provide support, and Ecology's GIS team would need funding for any time spent on a project... so I think you are on your own...

If needed I can provide lat/long for the ISIS information (the three labelled cleanup sites).

Also, I forgot to mention, there is EAP data for Discovery bay. See attached e-mail for links. summary below:

From EAP 2002-2003 study (2013 study details were composited into "indices", no individual discussion similar to what is shown below was provided... but 2013 was worse when compared to 2002/2003 in comparison charts).

Sea Urchin (*Strongylocentrotus purpuratus*) Fertilization in Pore Water – 30 minute

Among the 90 samples (81 from 2002-2003, plus 9 from 1998), mean fertilization success was significantly less than the Texas reference sediments in 10 samples (Table 14). Thus, the overall incidence of significant responses for the combined survey area was 11% (10 of 90): 7% (2 of 30) in the San Juan Islands region, 20% (6 of 30) in the eastern Strait of Juan de Fuca, and 7% (2 of 30) in the Admiralty Inlet region. Mean, control-adjusted, fertilization success was significantly lower than in the Texas controls and less than 80% in 9% of the samples (8 of 90): 3% (1 of 30) in the San Juan Islands region, 17% (5 of 30) in the eastern Strait of Juan de Fuca, and 7% (2 of 30) in Admiralty Inlet. Mean fertilization success was lowest (1% and 8%, respectively) in samples from stations 1355 in Oak Bay and 521 in Discovery Bay. A maximum of 99.8% fertilization was recorded in many samples.

Echinoderm (*Dendraster excentricus*) Embryo Development in Sediment/Water Mixtures (Elutriates) – 48 hour

The echinoderm embryo test was not performed on the nine samples from Admiralty Inlet collected in 1998; therefore, there are results for 81 of the 90 samples (Table 15). Results initially expressed as mortality/abnormality (Appendix B-1) were converted to mean normal survival. Mean normal survival among the 81 samples ranged from 18.2% in sample 441 from East Sound to 98.6% in sample 225 from Prevost Harbor on Stuart Island. This was a highly sensitive test, resulting in significant outcomes in the most samples as compared to the other three tests.

There were 48 samples (59%) among the 81 tested in which mean percent normal survival was significantly less than in the reference sediments (Table 15). Among these 48 samples, there were 25 in which the outcome was both significant and less than 85% of that in the reference sediments for an overall incidence of highly significant toxicity of 25 of 81 samples, or 30.9%. The incidence of highly significant results was highest in the San Juan Island and eastern Strait of Juan de Fuca regions (30% and 40%, respectively) and much lower (19%) in Admiralty Inlet. There were 34 out of 81 samples in which the outcomes were less than 50% of that in the reference.

From: Bachman, Brenda [mailto:bachman.brenda@epa.gov]
Sent: Tuesday, August 16, 2016 3:28 PM
To: Inouye, Laura (ECY)
Subject: RE: information

Thank you, this is very helpful. Brenda

From: Inouye, Laura (ECY) [mailto:Lino461@ECY.WA.GOV]
Sent: Tuesday, August 16, 2016 1:52 PM
To: Bachman, Brenda <bachman.brenda@epa.gov>
Subject: information

Here is a set of maps that I annotated for things I'm aware of in the vicinity. I am working on trying to find a GIS person...

- Top map labels where the native oyster survey was (transect), some commercial oysters I saw while out, the older project area (breach/berm work), and the approximate project location for the new project.
- Lower map from latest application showing the new proposed work area.

POC for the native oyster project: Lowe, Cheryl B cheryl.lowe@wsu.edu

"Snow Creek and Maynard Shoreline Excavation Project"

STATUS: no further action

POC: Kirsten Alvarez 360-407-6246, kalv461@ecy.wa.gov

CoC: PAHs

"North Olympic Salmon Coalition Discovery Bay DOT Right of Way"

STATUS: awaiting cleanup

POC: Kirsten Alvarez 360-407-6246, kalv461@ecy.wa.gov

CoC: petroleum (diesel, gasoline), non-halogenated solvents

DOT Discover Bay Maintenance Site

STATUS: no further action

POC: SW regional office, no POC listed

CoC: benzene, lead, petroleum (diesel, gasoline), non-halogenated organics